

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-18. (Canceled)

19. (Previously Presented) A data communications adapter apparatus for coupling a host computer to a computer network employing communications media, the data communications adapter comprising:

ethernet control circuitry;

a host interface configured to exchange data with said host computer;

a transceiver coupled to receive and transmit data over the media;

data transmit control circuitry responsive to said Ethernet control circuitry and coupled to said transceiver, to said transmit data buffer, and to said host interface, for generating a packet transmit signal causing said transceiver to begin transmitting data from said transmit data buffer over said communications media;

a receive data buffer coupled to said host interface; and

data receive control circuitry responsive to said Ethernet control circuitry and coupled to said transceiver, to said receive data buffer, and to said host interface, for storing data received by said transceiver in said receive data buffer, and for generating a receive interrupt signaling to said host computer that data has been received by said transceiver, wherein said data receive control circuitry is operative to generate said receive interrupt once said transceiver has received over said communications media a predetermined number of bytes of a data packet less than all of said data packet wherein said ethernet control circuitry, said host interface circuitry, and said data receive control circuitry, said data transmit control circuitry, said receive data buffer and said transmit data buffer are all contained in a single Application Specific Integrated Circuit (ASIC).

20. (Previously Presented) The adapter of Claim 19, wherein said data receive control circuitry is programmable.

21. (Previously Presented) The adapter of Claim 19, wherein said data transmit control circuitry is programmable to generate said packet transmit signal when said transmit data buffer contains a predetermined number of bytes of a data packet less than all of said data packet.

22. (Previously Presented) A method of transferring a packet of data from a computer network communications media through an adapter to a host computer, said method comprising the steps of:

receiving from said communications media through a transceiver and storing in an adapter receive buffer a predetermined first receive threshold number of bytes of said packet;

generating a first early receive interrupt from said adapter to said host computer;

adjusting said receive threshold according to a length of said packet;

continuing to receive from said communications media through said transceiver and store in an adapter receive buffer bytes of said packet;

thereafter generating a second early receive interrupt from said adapter to said host computer, prior to complete reception of said data packet; and

storing from said communications media through said transceiver and storing in said adapter receive buffer a remainder of said packet;

wherein said host computer employs a driver allowing for early indications and having an early lookahead size associated with a predetermined first receive threshold number of bytes.

23. (Canceled)

24. (Previously Presented) The method of Claim 22, further comprising, after the step of generating said first interrupt, the steps of

- a) evaluating the number of bytes stored in said adapter receive buffer against said early lookahead size; and
- b) adjusting said receive threshold if said evaluating step does not indicate substantial equality.

25-28. (Canceled)

29. (Previously Presented) The adapter of Claim 19 wherein the receive data buffer is a ring buffer connected to the host interface via a DMA channel.

30. (New) The adapter of Claim 19 wherein said host interface is coupled to said host computer.

31. (New) The adapter of Claim 19 in combination with a host computer, the adapter being coupled to said host computer.